

IN THE CLAIMS:

1. (currently amended) A method of making a filter medium for use in a filtering application at an application temperature comprising:

providing a substrate;

providing a polyimide stiffening agent in solution;

diluting the polyimide stiffening agent solution to approximately 5.5% solids;

treating the substrate with the polyimide stiffening agent solution; and

curing the treated substrate, wherein the treated substrate with the polyimide stiffening agent is capable of withstanding at least 100,000 cleaning pulses at a temperature of about 375°F, a flowrate of about 1200 cubic feet per minute, and a pressure of about 60psi.

2. (previously presented) The method of claim 1, further including calendering the substrate after the step of providing a substrate and before the step of treating the substrate.

3. (original) The method of claim 1, wherein the substrate is selected from the group consisting of polyarylene sulfides, aramides, polyimides, glass, acrylics, pre-oxidized acrylics and mixtures thereof.

4. (original) The method of claim 1, wherein the polyimide is selected from the group consisting of polyamideimides, polyetherimides and polybismaleimides.

5. (previously presented) The method of claim 1, further including pleating the treated substrate after the step of curing the treated substrate.

6. (original) The method of claim 5, wherein the pleating of the treated substrate is at a temperature above the application temperature.

7. (original) The method of claim 1, wherein the polyimide stiffening agent is about 2% to about 20% by weight of the total weight of the filter medium.

8. (original) The method of claim 1, wherein the application temperature is greater than about 375°F.

9. (currently amended) A method of making a filter medium for use in a filtering application at an application temperature comprising:

providing a polymer substrate;

calendering the polymer substrate;

providing a polyimide stiffening agent in solution;

diluting the polyimide stiffening agent solution to approximately 5.5% solids;

treating the calendered polymer substrate with the polyimide stiffening agent solution;
and

curing the treated polymer substrate, wherein the treated polymer substrate with the polyimide stiffening agent is capable of withstanding at least 100,000 cleaning pulses at a temperature of about 375°F, a flowrate of about 1200 cubic feet per minute, and a pressure of about 60psi.

10. (previously presented) The method of claim 9, wherein the polymer substrate is selected from the group consisting of polyarylene sulfides, aramides, polyimides, acrylics, pre-oxidized acrylics and mixtures thereof.

11. (original) The method of Claim 9, wherein the polyimide is selected from the group consisting of polyamideimides, polyetherimides and polybismaleimides.

12. (previously presented) The method of Claim 9, further including pleating the treated polymer substrate after the step of curing the treated substrate.

13. (original) The method of claim 12, wherein the pleating of the treated substrate is at a temperature above the application temperature.

14. (original) The method of claim 9, wherein the polyimide stiffening agent is about 2% to about 20% by weight of the total weight of the filter medium.

15. (original) The method of claim 9, wherein the application temperature is greater than about 375°F.

16. (previously presented) A method of making a filter medium for use in a filtering application at an application temperature comprising:

providing a substrate;

calendering the substrate;

providing a polyimide stiffening agent selected from the group consisting of polyetherimides and polybismaleimides;

treating the calendered substrate with the polyimide stiffening agent;

curing the treated substrate; and

pleating the treated substrate at a temperature that is higher than the application temperature.

17. (original) The method of claim 16, wherein the substrate is selected from the group consisting of polyarylene sulfides, aramides, polyimides, glass, acrylics, pre-oxidized acrylics and mixtures thereof.

18. (canceled)

19. (previously presented) The method of claim 16, wherein the calendered substrate with the polyimide stiffening agent is capable of withstanding at least 100,000 cleaning

pulses at a temperature of about 375°F, a flowrate of about 1200 cubic feet per minute, and a pressure of about 60psi.

20. (original) The method of claim 16, wherein the polyimide stiffening agent is about 2% to about 20% by weight of the total weight of the filter medium.

21. (original) The method of claim 16, wherein the application temperature is greater than about 375°F.